Patent

Docket No. 87304.1940 Serial No.: 10/687,619 Customer No. 30734

REMARKS/ARGUMENTS

Claims 1-26 are pending. Claims 1, 4, and 10 are amended. Claim 4 has been amended to correct obvious typographical errors and not for reasons substantially related to patentability. Claim 10 has been amended to correct dependency. Claim 1 has been amended to recite "... wherein said cabinet is configured for deployment in outdoor environments." Support for the amendments is found in the specification. No new matter is added.

The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references.

Therefore, reconsideration of the application is respectfully requested.

DRAWING OBJECTIONS

The Office Action Summary indicates that the drawings are objected to. However, no further information regarding the objection to the drawings is provided in the Office Action. Lacking such information, Applicant contacted Examiner M. M. Ali and Supervisor D. Esquivel, at least on February 14, 2005 March 7, 2005, and March 22, 2005, and received an E-mail reply from D. Esquivel on March 28, 2005 stating that a Supplemental Office Action will be provided and that the period for reply will be restarted. However, as of this date, Applicant has not received the Supplemental Office Action. Accordingly, having no explanation regarding the objection to the drawings, this response does not address the objection.

ALLOWABLE SUBJECT MATTER

Applicant thanks the Examiner for allowing claims 21-26 and indicating that claims 5-13 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant respectfully submits that pending claims 1-20 also contain patentable subject matter.

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CLAIM REJECTIONS – 35 U.S.C. § 102(b)

The Office Action rejected claims 1-4, 12, and 14-19 under 35 U.S.C. §102(b) as

being unpatentable over Lewis et al., U.S. Patent No. 5,333,460 (hereinafter "Lewis et

al."). Applicant respectfully traverses this rejection.

A § 102 rejection is proper only if each and every element as set forth in the claim

is found—i.e., the prior art must teach every aspect of the claim. See Verdegall Bros. v.

Union Oil Co. of California 918 F.2d 628, 631 (Fed. Cir. 1987); see also MPEP §2131.

Applicant's independent claim 1 recites: An enclosure for containing at least one

coolant compressor/chiller for a housed cryogenic apparatus, comprising a cabinet coupled

to the apparatus housing, wherein said cabinet is configured for deployment in outdoor

environments, an air conditioner affixed to said cabinet, and a plurality of coolant line

guides positioned within said cabinet.

Lewis et al. employs a first self-supporting cryogenic feed line 28 terminating

within the apparatus in a cold plate 30 (column 2, line 66-column 3, line 2; see figs. 2, 3,

and 4 for views of the feed line). The routing and management of the second feed line 26

proximal to the first feed line 28 are not made evident in the figures or in the disclosure of

Lewis et al.

Lewis et al. further emphasizes providing a self-contained assembly (col. 1, ll. 52-

56), including a cold head 30 to which the objects to be chilled are attached (col. 3, 11. 50-

55), wherein the objects to be chilled are components of another system, housed in a

cryostat and affixed to the cryocooler enclosure of Lewis et al. (col. 4, ll. 18-32).

However, Lewis et al. does not teach or suggest providing as a part of the

cryocooler a cabinet configured for deployment in outdoor environments, nor a cabinet

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including an air conditioner, as recited in Applicant's claim 1. Indeed, Lewis et al. teaches a self-contained, portable cryocooler (col. 1, ll. 53-59) to be mounted within a "standard" EIA enclosure (col. 2, ll. 54-60). Heat from the cryocooler of Lewis et al. is rejected to the air stream which flows through a heat exchanger, through a grill, to the space in which the EIA enclosure is located (col. 4, ll. 7-13).

In contrast, Applicant's independent claim 1 recites "a cabinet coupled to the apparatus housing" wherein the preamble makes clear that the apparatus housing contains a cryogenic apparatus, and that the cabinet is a component of an inventive enclosure wherein a compressor/chiller is contained. Claim 1 further recites an air conditioner affixed to the cabinet, and a plurality of coolant line guides positioned within the cabinet. Because Lewis et al. does not teach or suggest each and every element in claim 1, Applicant respectfully submits that a § 102(b) rejection is not proper.

Dependent claims 2-4, 12, and 14-19 are patentable by reason of their ultimate dependency from an allowable independent claim.

At least for the reasons stated above, claim 1 and its dependent claims 2-4, 12, and 14-19 are patentable over the Lewis et al. reference. Applicant therefore respectfully requests that the § 102 rejection of claim 1 and its dependent claims be withdrawn.

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CLAIM REJECTIONS – 35 U.S.C. § 103(a)

Claims 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lewis et al. in view of Linhardt, U.S. Patent No. 3,799,249, (hereinafter "Linhardt"). Applicant respectfully traverses this rejection.

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." (*See MPEP § 2143.*)

With respect to dependent claim 20, Lewis et al. has been shown above to fail to teach or suggest all of the features of claim 1, specifically a cabinet configured for deployment in outdoor environments. Linhardt recites a heat source wherein water is injected into a hot gas stream, and is in the field of liquid natural gas (LNG) conversion for storage and use in a gaseous state. Linhardt does not contain any disclosure or suggestion regarding the subject matter lacking in Lewis et al. Linhardt thus does not supply the subject matter missing in Lewis et al. Therefore, claim 1 is patentable over the combined references of Lewis et al. and Linhardt, and claim 20 is patentable at least by reason of its dependency from claim 1.

Further, Applicant's claim 20 recites the air conditioner of claim 1, wherein the air conditioner adds water vapor to the air volume within the cabinet. By contrast, Linhardt employs spraying of water into a combustion exhaust stream for moderating heat flow and increasing thermal transfer efficiency in a jet engine powered LNG (liquefied natural gas, characterized by Linhardt as a "cryogenic" material, col. 2, line 11) vaporizer (col. 3, ll. 16-25). The water spray so applied is then discharged from the heat transfer chamber by a

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flue (if vaporized) (col. 3, ll. 59-61) or optionally discharged (if not vaporized) or recirculated until successfully vaporized and discharged (col. 3, ll. 61-66). Thus, the water of Linhardt is not added as a vapor to the air volume within a cabinet.

Because Linhardt provides an apparatus for changing a cryogenic liquid to a gas by adding heat energy thereto (col. 2, ll. 42-44), there is no motivation to combine this reference with Lewis et al., wherein apparatus for chilling electronic devices to superconducting temperatures is described.

Because Lewis et al. and Linhardt, individually or in combination, does not disclose or render obvious all the claimed features of the Applicant's invention, a *prima* facie case of obviousness is not established. Therefore, claim 20 is patentable over Lewis et al. in view of Linhardt.

For at least these reasons, Applicant respectfully requests that the § 103 rejection of claim 20 be withdrawn.

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CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the application is in condition for allowance. Should the Examiner believe anything further is necessary to place the application in a better condition for allowance, the Examiner is invited to contact the undersigned attorney at 202-861-1556.

In the event this paper is not timely filed, Applicant petitions for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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